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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,721	06/05/2000	Winga Ho	SMC1P008	7907

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EXAMINER	
BOUTAH, ALINA A	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/587,721	HO, WINGA	
	Examiner	Art Unit	
	Alina N Boutah	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 June 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to because reference number 24 in figure 2b should be labeled as decoder. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/14971 issued to Desnoyers et al. in view of EP 0851624 issued to Uota et al.

Regarding claim 1, Desnoyers teaches a method for transmitting encoded data between synchronized sending and receiving digital systems across a lossy transmission media, said sending and receiving digital systems maintaining encoder and decoder information records, said method comprising the steps of:

encoding packet data to be transmitted by said sending digital system using encoding information (page 3, lines 1-4);

transmitting the encoded packet data to said receiving digital system as a packet including a header having a packet number and a tag identifying the encoding information used to encode the packet data (page 3, lines 4-5);

when the packet is received by said receiving digital system, examining the header to determine the encoding information used to encode said packet data (page 3, lines 5-7);

decoding the packet using corresponding decoder information in said decoder information (page 1, lines 26-28); and

when the packet is lost, conditioning said encoder information to rebuild the new encoder information without the lost packet data (page 5, line 32 to page 6, line 10).

However, Desnoyers fails to teach: said encoder information record being previously acknowledged by said receiving digital system; building a new encoder information record including the encoding information used to encode said packet data as well as the packet data; updating the decoder information in said decoder information record with said packet data; and acknowledging processing of the packet to said sending digital system to enable said sending digital system to update said encoder information so that said new encoder information record is used to encode packet data.

Uota teaches a data transmission system that transmits data between a sending and receiving digital systems, wherein a packet data to be sent is constructed of information record being previously acknowledged by said receiving digital system (abstract; col. 2, lines 52-54);

building a new information record including the information used to construct said packet data as well as the packet data (abstract; col. 2, lines 52-54);

updating the information in said receiver information record with said packet data (abstract; col. 3, lines 2-10, and 32-35); and

acknowledging processing of the packet to said sending digital system to enable said sending digital system to update said information so that said new information record is used to send packet data (abstract; col. 2, line 45 to col. 3, line 40; figures 4 and 5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the teaching of Desnoyers by combining it with the teaching of Uota because by maintaining an acknowledged information record from the decoder, the sender is able to encode and retransmit a data packet using the record that has no error, thus reducing the chance of packet lost and optimizing the encoding process.

Regarding claim 2, Desnoyers teaches the method of claim 1, wherein said conditioning step is performed when a packet is received out of sequence and a predetermined amount of time elapses without said missing packet being received (page 6, line 12 to page 7, line 31, page 10, lies 12-22).

Regarding claim 3, Desnoyers teaches the method of claim 2 wherein packets received out of sequence are stored in a queue and wherein a packet timer is initiated to count said predetermined amount of time when a packet is received out of sequence, said packet timer being stopped when said missing packet is received (page 6, line 12 to page 7, line 31).

Regarding claim 4, Desnoyers teaches the method of claim 3, wherein said conditioning step includes the step of sending a synch control packet to said sending digital system, and synch control packet including a tag identifying the last processed packet, said sending digital system using said synch control packet to rebuild said new encoded information record (page 6, line 12 to page 11, line 30).

Regarding claim 5, Desnoyers teaches the method of claim 4 wherein said conditioning step further includes the steps of initiating a synchronization timer when said synch control packet is sent; stopping said timer when an acknowledgment is received from said sending digital system in response to said synch control packet; and resending the synch control packet and reinitiating the synchronization timer if said synchronization timer expires and an acknowledgment has not been received (page 6, line 12 to page 11, line 30).

Regarding claim 6, Desnoyers teaches the method of claim 5 wherein said conditioning step further includes the steps of incrementing a counter each time a synch control packet is sent; comparing the value of said counter to determine if the value equals a threshold prior to resending the synch control packet and reinitiating the synchronization timer; and resetting the communication link between said sending and receiving digital systems if the value of said counter equals said threshold value (page 6, line 12 to page 11, line 30).

Regarding claim 7, Desnoyers teaches the method of claim 1 wherein during said acknowledging step, and acknowledgment packet is returned to said sending digital system, said

acknowledgment packet including identifying the last packet processed by said receiving digital system (page 6, line 12 to page 11, line 30).

Regarding claim 8, Desnoyers teaches the method of claim 1 wherein during said acknowledging step, an acknowledgment header encapsulating data packets is returned to said sending digital system, said acknowledgment header identifying the last packet processed by said receiving digital system (page 6, line 12 to page 11, line 30).

Regarding claim 9, Desnoyers teaches the method of claim 1 further comprising the steps of, prior to decoding said packets, examining said packets to detect corrupts packets and discarding corrupted packets (page 6, line 12 to page 11, line 30).

Regarding claim 10, Desnoyers teaches the method of claim 9 wherein during said examining step a cyclic redundancy check is performed on said packets (page 3, lines 17-27).

Regarding claim 11, Desnoyers teaches the method of claim 10 further comprising the step of discarding received packets having packet numbers outside of a define range of the packet numbers of the expected packets (page 6, line 12 to page 11, line 30).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. USPN 6,560,282 issued to Tahara et al.
2. USPN 6,228,120 issued to Leonard et al.
3. USPN 5,612,683 issued to Trempala et al.
4. USPN 5,907,637 issued to Murashita et al.
5. WO 92/10893 issued to Shah et al.
6. WO 91/10289 issued to Gutman et al.
7. Lara-Barron, M., and Lockhart, G. "Packet-based Embedded Encoding for Transmission of low-bit-rate-encoded Speech in Packet Networks." IEEE, 1992, pages 482-487.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alina N Boutah whose telephone number is (703) 305-5104. The examiner can normally be reached on Monday-Friday (8:30 am-5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9112 for regular communications and (703) 305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

ANB
May 30, 2003

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100